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and a mating region, the mating region including a customized surface contour that is generally a negative of the surface region of the proximal portion of the femur, the surface contour of the mating region being configured to matingly contact the surface region in a generally matching or interdigitating manner when the surface region is matingly received by the mating region, the saw guide and mating region being positioned relative to each other so the saw guide is positioned to guide a resection that generally corresponds to a preoperatively planned resection plane when the mating region matingly contacts the surface region, the surface region including at least a portion of an anterior region of the neck, the at least a portion of an anterior region of the neck extending up to approximately 8 mm laterally past an intertrochanteric line.

38. The tool of claim 37, wherein the saw guide includes at least one planar surface.

39. The tool of claim 37, wherein the surface region includes a medial surface of a greater trochanter.

40. A surgical guide tool for use in total hip replacement surgery on a proximal portion of a femur having a head, a neck extending distally from the head, and a surface region distal the head, the tool comprising: a body including a saw guide and a mating region, the mating region including a customized surface contour that is generally a negative of the surface region of the proximal portion of the femur, the surface contour of the mating region being configured to matingly contact the surface region in a generally matching or interdigitating manner when the surface region is matingly received by the mating region, the saw guide and mating region being positioned relative to each other so the saw guide is positioned to guide a resection that generally corresponds to a preoperatively planned resection plane when the mating region matingly contacts the surface region, the surface region including at least a portion of a lateral posterior greater trochanter.

41. The tool of claim 40, wherein the saw guide includes at least one planar surface.

42. The tool of claim 40, wherein the surface region further includes at least a portion of a medial posterior greater trochanter.

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43. The tool of claim 42, wherein the surface region does not include at least a portion of an intertrochanteric crest.

44. The tool of claim 40, wherein the surface region further includes at least a portion of a posterior region of the neck.

45. The tool of claim 44, wherein the surface region does not include at least a portion of a trochanteric fossa.

46. The tool of claim 40, wherein the surface region further includes at least a portion of a medial posterior greater trochanter and at least a portion of a posterior region of the neck, and wherein the surface region does not include at least a portion of an intertrochanteric crest and does not include at least a portion of a trochanteric fossa.

47. A surgical guide tool for use in total hip replacement surgery on a proximal portion of a femur, the tool comprising: a mating region including a customized surface contour that is generally a negative of a surface region of the proximal portion of the femur, the surface contour of the mating region being configured to matingly contact the surface region in a generally matching or interdigitating manner when the surface region is matingly received by the mating region and a saw guide, wherein, when the mating region matingly contacts the surface region of the proximal portion, the saw guide is generally aligned with a preoperatively planned resection plane.

48. The tool of claim 47, wherein the saw guide includes at least one planar surface.

49. The tool of claim 48, wherein the at least one planar surface forms a saw slot.

50. The tool of claim 47, wherein the mating region includes contact surfaces and non-contact surfaces, wherein, when the mating region matingly contacts the proximal portion, the contact surfaces matingly contact surfaces of the proximal portion opposing the contact surfaces, and the non-contact surfaces are spaced apart from surfaces of the proximal portion opposing the non-contact surfaces.

51. The tool of claim 50, wherein the non-contact surfaces are a result of an overestimation process.

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